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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/364,070	07/30/1999	AKIHIRO SUZUKI	3327.2062-01	8907

22852 7590 11/13/2006

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EXAMINER
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POON, KING Y

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/364,070

Applicant(s)

SUZUKI ET AL.

Examiner

King Y. Poon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 16-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 08/544,076.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claim 15 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8/31/2006.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 16-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bain et al. (US 5,287,434) in view of Hube (US 5,517,316) and Hower, Jr. et al (US 5,467,434).

Regarding claim 16: Bain et al teaches a job scheduling device (PC 14, column 3, lines 50-55) for storing, in a queue, (fig. 4, column 8, lines 35-40) print jobs (job, fig. 2, J1, J2, ..., fig. 1) which include print data and attribute information (column 8, lines 35-40, column 6, lines 55-69) and for which processing requests (the request of user of how to process print job, column 4, lines 34-46) were received and for sequentially printing the print jobs held in the queue (search for the highest priority job to be printed, column 10, lines 40-46, i.e., print job in the sequence from highest priority to lowest priority) based on the attribute information (job's priority, column 10, lines 40-45) using a

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job execution section, (the routine of processor that distribute a print job to a printer, column 11, lines 58-63) the job scheduling device is configured to: maintain a plurality of queues (Q1-Qn, fig. 1) provided corresponding to states of the jobs; (the job to be printed by a certain type of printer, column 8, lines 25-35), and schedule (the routine of the processor 19 that schedule print job according to the type of printer and priority, column 8, lines 25-35) the jobs using the plurality of queues; and modify (routine block 78, column 8, lines 1-8) the attribute information (priority, column 8, line 2) only when a print job can be changed at the time that an instruction (change request message, column 8, lines 1-8) for modifying the attribute information (priority, column 8, line 2) of the print job is received, and when the attribute information is determined to be free from errors (attribute information is 1's and 0's to the microprocessor; attribute information is free from error is being interpreted as the microprocessor would recognize/determined from the attribute information (1's and 0's) as a attribute information. Errors in the attribute information means the microprocessor would not recognize the 1's and 0's in the attribute information. The microprocessor changes the attribute in response to a change attribute, column 8, lines 1-10. Therefore, the microprocessor would change attribute only when the attribute information is free from error; i.e. The microprocessor would recognized the attribute information).

Bain does not teach receiving processing request from terminals, attribute information is determined to be acceptable to the job scheduling device, wherein the attribute information is at least one of paper size, tray number, and availability of double-side printing.

Hube of Xerox, in the same area of using print queue of managing print jobs, (fig. 7), teaches receiving processing request from terminals (fig. 1), users can view print job and attribute information stored in a queue (column 6, lines 43-52); Hube further teaches to reprogram a job ticket of a print job stored in a queue, (column 8, lines 15-30, 224, fig. 11). Hower of Xerox, teaches programming of a job ticket is programming attribute information wherein the attribute information is at least one of paper size, tray number, and availability of double-side printing (column 4, lines 1-10, fig. 3-12). Hower, further teaches it is benefit that the programmed print job attribute is to be acceptable to the job scheduler (server, column 4, lines 50-65) such as the entered attribute can be carried out by the printer, (column 9, lines 25-30).

Since Bain teaches programming a print job to be store in a spool and to select a printer to print the print job based on the programmed print job attribute and teaches to modified print job attributes, and every user would like to have their print job and attribute (user desired printing options) being successfully printed out; it would have been obvious to a person with ordinary skill in the art at the time the invention is make to have modify Bain to include: receiving processing request from terminals, attribute information is determined to be acceptable to the job scheduling device, wherein the attribute information is at least one of paper size, tray number, and availability of double-side printing.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Bain's job scheduling device by the teaching of Hube and Hower because of the following reasons: (a) it would have allowed a user

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at any local area within the network of the scheduling device and the different terminals to control printing of a job, (b) it would have allowed the job scheduling device to schedule print jobs for different users at different locations (terminals) and increased the usage of the system, (c) it would have allowed user that don't know how to program the print job of Bain to have an idea of what a print attribute is in order to make use of Bain's invention; it would have allowed the print job of Bain to be completed when the printer is not capable of printing the print job; and it would have completed Bain's invention – Bain's invention omits explaining the print attributes of his print job in detail; which is well known in the art; and (d) it would have prevented unsatisfied customers due to having user's print job printed not according to user selected options.

Regarding claim 17: Bain teaches modifies the attribute information of the print job when the attribute information of the print job can be modified (inherent properties of modifying; it is impossible/can to modify something when the something is impossible to be modified. I.e., the something can be modified only when the something can be modified; also see claim 16).

Regarding claim 18: Bain teaches to modify the attribute information of the print job when the instruction is free from errors (attribute information/instruction is 1's and 0's to the microprocessor; attribute information/instruction is free from error is being interpreted as the microprocessor would recognize/determined from the attribute information (1's and 0's) as a attribute information/instruction. Errors in the attribute information/instruction means the microprocessor would not recognize the 1's and 0's in the attribute information/instruction. The microprocessor changes the attribute in

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response to a change attribute, column 8, lines 1-10. Therefore, the microprocessor would change attribute only when the attribute information/instruction is free from error; i.e. The microprocessor would recognized the attribute information/instruction).

Regarding claim 19: Bain teaches determines whether the attribute information of the print job can be modified based on the queue in which the print job is stored (column 8, lines 1-10, based on whether the queue is in the process of distributing the print job to a printer).

Regarding claim 20: Bain teaches determines that the instruction has an error (78, fig. 2, column 8, lines 1-10, the attribute modifying means must determines if the instruction can be processed; the examiner interprets that the event that the instruction can not be processed, e.g., the job cannot be processed by a printer, is an error) when the instruction includes an attribute that is not supported by the job scheduling device (the change of priority of a print job is not being supported during the time the print job is being distributed to a printer, column 8, lines 1-10; also see claim 16).

Regarding claim 21: Bain et al teaches a job scheduling device (PC 14, column 3, lines 50-55), wherein the job scheduling device is configured to: maintain a queue that stores print jobs, (fig. 4, column 8, lines 35-40) that stores print jobs (job, fig. 2, J1, J2, ..., fig. 1) which include print data and attribute information (column 8, lines 35-40, column 6, lines 55-69) relating to a print job output result (e.g., the print job is being printed ahead of other jobs would resulted in a faster outputted print job); schedule (the routine of the processor 19 that schedule print job according to the type of printer and priority, column 8, lines 25-35) the print jobs stored in the queues; and modified (routine

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block 78, column 8, lines 1-8) the attribute information (priority, column 8, line 2) of the print job stored in the queue when an instruction (change request message, column 8, lines 1-8) for modifying the attribute information (priority, column 8, line 2) of the print job is received and wherein the attribute modifying means modifies the attribute information only when the attribute information is determined to be free from error (attribute information is 1's and 0's to the microprocessor; attribute information is free from error is being interpreted as the microprocessor would recognize/determined from the attribute information (1's and 0's) as a attribute information. Errors in the attribute information means the microprocessor would not recognize the 1's and 0's in the attribute information. The microprocessor changes the attribute in response to a change attribute, column 8, lines 1-10. Therefore, the microprocessor would change attribute only when the attribute information is free from error; i.e. The microprocessor would recognized the attribute information).

Bain does not teach receiving processing request from terminals, attribute information is determined to be acceptable to the job scheduling device, wherein the attribute information is at least one of paper size, tray number, and availability of double-side printing.

Hube of Xerox, in the same area of using print queue of managing print jobs, (fig. 7), teaches receiving processing request from terminals (fig. 1), users can view print job and attribute information stored in a queue (column 6, lines 43-52); Hube further teaches to reprogram a job ticket of a print job stored in a queue, (column 8, lines 15-30, 224, fig. 11). Hower of Xerox, teaches programming of a job ticket is programming



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attribute information wherein the attribute information is at least one of paper size, tray number, and availability of double-side printing (column 4, lines 1-10, fig. 3-12). Hower, further teaches it is benefit that the programmed print job attribute is to be acceptable to the job scheduler (server, column 4, lines 50-65) such as the entered attribute can be carried out by the printer, (column 9, lines 25-30).

Since Bain teaches programming a print job to be store in a spool and to select a printer to print the print job based on the programmed print job attribute and teaches to modified print job attributes, and every user would like to have their print job and attribute (user desired printing options) being successfully printed out; it would have been obvious to a person with ordinary skill in the art at the time the invention is make to have modify Bain to include: receiving processing request from terminals, attribute information is determined to be acceptable to the job scheduling device, wherein the attribute information is at least one of paper size, tray number, and availability of double-side printing.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Bain's job scheduling device by the teaching of Hube and Hower because of the following reasons: (a) it would have allowed a user at any local area within the network of the scheduling device and the different terminals to control printing of a job, (b) it would have allowed the job scheduling device to schedule print jobs for different users at different locations (terminals) and increased the usage of the system, (c) it would have allowed user that don' t known how to program the print job of Bain to have an ideal of what a print attribute is in order to made use of

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Bain's invention; it would have allowed the print job of Bain to be completed when the printer is not capable of printing the print job; and it would have completed Bain's invention – Bain's invention omits explaining the print attributes of his print job in detail; which is well known in the art; and (d) it would have prevented unsatisfied customers due to having user's print job printed not according to user selected options.

Regarding claim 22: Bain teaches modifies the attribute information of the print job when the attribute information of the print job can be modified (inherent properties of modifying; it is impossible/can to modify something when the something is impossible to be modified. I.e., the something can be modified only when the something can be modified; also see claim 16).

Regarding claim 23: Bain teaches modifies the attribute information of the print job when the instruction is free from errors (instruction is free from error is being interpreted as the microprocessor would recognize the change request message as a change request message. Errors in the change request message means the microprocessor would not recognize the change request message. The microprocessor change the attribute in response to a change request message/instruction, column 8, lines 1-10. Therefore, the microprocessor would change attribute only when the instruction is free from error).

Regarding claim 24: Bain teaches determines whether the attribute information of the print job can be modified based on the status of the print job (column 8, lines 1-10, based on whether the print job is being distributed to a printer).

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Regarding claim 25: Bain teaches determines that the instruction has an error (78, fig. 2, column 8, lines 1-10, the attribute modifying means must determines if the instruction can be processed; the examiner interprets that the event that the instruction can not be processed, e.g., the job cannot be processed by a printer, is an error) when the instruction includes an attribute that is not supported by the job scheduling device (the change of priority of a print job is not being supported during the time the print job is being distributed to a printer, column 8, lines 1-10; also see claim 16).

#### ***Allowable Subject Matter***

4. Claims 1-6 are allowed.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 16-25 have been considered but are moot in view of the new ground(s) of rejection. Please see detailed office action.

#### ***Conclusion***

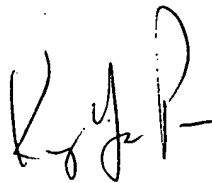
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is 571-272-7440. The examiner can normally be reached on Mon-Fri 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 3, 2006

A handwritten signature in black ink, appearing to read 'K. Y. Poon', with a stylized flourish at the end.

**KING Y. POON  
PRIMARY EXAMINER**